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**NEW BIRDS FROM CERRALVO ISLAND,
BAJA CALIFORNIA, MEXICO**

By

Richard C. Banks

Research Biologist,

*California Academy of Sciences**

Cerralvo Island, Baja California, Mexico, is the southernmost of the islands in the Gulf of California. Although long known to be the home of several endemic forms of mammals and reptiles, the island has until recently been neglected by ornithologists. The scattered references in the literature, summarized by Banks (1962), concern only the presence of a few species of birds on the island. The present paper is a forerunner to an analysis of the avifauna of the island.

Cerralvo Island is approximately 18 miles in length and 4 miles in greatest width, and lies about 5 miles from the nearest part of the peninsula of Baja California. The Lower Sonoran vegetation is typical of that in the lowlands of the Cape region, and varies from sparse at the north end of the island to extremely dense farther south.

The descriptions that follow are based entirely on specimens taken in the fall, although a few specimens from the spring are available. The worn and faded plumage of the spring birds, reflecting the harsh desert conditions, reduces their usefulness by tending to obscure differences which are apparent in the fall birds. Comparison with subspecies in the southern part of the peninsula of Baja California has been restricted to specimens from the Cape re-

* Present Address: San Diego Natural History Museum

gion. All specimens from Cerralvo Island are in the collections of the California Academy of Sciences, the Museum of Vertebrate Zoology, and the San Diego Natural History Museum.

Dendrocopos scalaris soulei Banks, new subspecies.

TYPE. Female, California Academy of Sciences no. 62645; Ruffo's Ranch, Cerralvo Island, Baja California, Mexico, November 1, 1961; collected by Richard C. Banks, original number 1056; weight 29.8 gm.

DIAGNOSIS. Size near that of *D. s. lucasanus* of southern Baja California, but averaging slightly shorter in wing length (table 1). Differs from *D. s. lucasanus* in having more black in the outer three rectrices, especially in the outer web of the third rectrix, in having more abundant and larger spots on the flanks and sides of the breast, particularly evident in females, and in being less buffy, more grayish, below; the black on the wings appears to be darker, contrasting more sharply with the white. Differs from *D. s. eremicus* of northern Baja California in its smaller size, from *D. s. sinaloensis* of mainland Mexico by its larger size, and from *D. s. cactophilus* in being spotted rather than streaked on the flanks and in its darker dorsal coloration.

RANGE. Restricted to Cerralvo Island, in the Gulf of California, Baja California, Mexico.

COMMENTS. *Dendrocopos scalaris soulei* apparently is closely related to *D. s. lucasanus*. The major difference is the darkness of *D. s. soulei*, especially on the flanks and tail; both Xantus (1859) and Baird (1859) commented on the extreme whiteness of the tail of *D. s. lucasanus*. In the barring of the outer web of the third rectrix, *D. s. soulei* resembles *D. s. cactophilus* of southwestern United States and northwestern Mexico. *Dendrocopos s. eremicus* of the southern peninsula is intermediate between *D. s. lucasanus* and *D. s. cactophilus* in this respect.

This bird is named for my friend and field companion, Michael Soulé.

SPECIMENS. Six females and two males, October and November, and five females and one male, April, May and June, all from Cerralvo Island.

TABLE 1. *Wing lengths in mm. of Dendrocopos scalaris from southern Baja California*

	MALES			FEMALES		
	N	Range	Mean	N	Range	Mean
<i>D. s. lucasanus</i>	25	96.5-106.0	100.28	27	94.3-100.9	97.52
<i>D. s. soulei</i>	2	97.0- 98.8	97.90	6	92.5- 96.2	94.62

Richmondena cardinalis clintoni Banks, new subspecies

TYPE. Adult male, California Academy of Sciences no. 62694; Ruffo's Ranch, Cerralvo Island, Baja California, Mexico, November 4, 1961; collected by Richard C. Banks, original number 1076; weight 42.2 gm., testes 3 mm.

DIAGNOSIS. Generally similar in size to *R. c. ignea* of southern Baja California, but averaging slightly smaller in wing length; bill length equal to or slightly greater than that of *R. c. ignea*. Males differ from *R. c. ignea* in having the red on the underparts less intense and paler; *R. c. superba* differs from *R. c. ignea* in that the red is more orangish, whereas in *R. c. clintoni* it is more pink. The gray edges of the dorsal feathers of *R. c. clintoni* are lighter than those in *R. c. ignea*, which are in turn lighter than those of *R. c. superba*. Females of *R. c. clintoni* are grayer, less brown, dorsally, than *R. c. ignea*. Both *R. c. ignea* and *R. c. clintoni* are smaller than *R. c. superba*. *Richmondena c. clintoni* differs from *R. c. affinis* of the mainland of Mexico as does *R. c. ignea*.

RANGE. Restricted to Cerralvo Island, Baja California, Mexico.

COMMENTS. Van Rossem (1932) emphasized that because of fading and seasonal change, color comparisons of cardinals must be restricted to specimens in similar stages of plumage wear. Separation of birds by age groups is also important in detecting the color differences that separate *R. c. clintoni* from *R. c. ignea*.

This bird is named for my father in appreciation of his encouragement over the years.

SPECIMENS. Eight males and five females, October and November, and two males, May, all from Cerralvo Island.

Amphispiza bilineata belvederei Banks, new subspecies.

TYPE. First-year male, California Academy of Sciences no. 62610; east side Cerralvo Island, Baja California, Mexico, October 27, 1960; collected by Richard C. Banks, original number 886; weight 12.2 gm.

DIAGNOSIS. Darker dorsally than *A. b. bangsi* of southern Baja California, with more gray and less brownish; upper mandible slightly curved, whereas it is straight or nearly so in *A. b. bangsi*; size similar to *A. b. bangsi*. Differs from *A. b. deserticola* in being grayish rather than brownish dorsally.

RANGE. Restricted to Cerralvo Island, Baja California, Mexico.

COMMENTS. Black-throated sparrows in their first year are browner dorsally than adults. Thus, comparison of specimens of comparable age is important in color determination. Birds collected on Cerralvo Island were aged by skull characters and by the presence or absence of postnuptial molt of the flight feathers. First-year birds from Cerralvo are similar in color to adults of the Cape region. Color differences between the sexes, mentioned by van

Rossem (1945), are not perceptible to me. The color differences noted above were determined from fresh-plumaged birds taken in the fall, but they are apparent, although less well marked, in worn breeding birds.

Van Rossem (1945) described *A. b. carmenae* from Carmen Island in the Gulf of California as being grayer than *A. b. bangsi* of the southern part of the peninsula. Three specimens taken in April, 1962, on Carmen Island were compared to specimens from Cerralvo Island and from the Cape region taken in the same month. Birds from both Cerralvo and Carmen islands are grayer than those from the Cape region, but those from Carmen are much lighter in dorsal coloration than the specimens from Cerralvo. This suggests the validity of *A. b. carmenae*, but more specimens should be examined before final judgement is made.

The name supplied for this bird recognizes the significant contribution of the Belvedere Scientific Fund to the understanding of the biology of Baja California.

SPECIMENS. Ten males and two females, October and November, and seven males and five females, April, May and June, all from Cerralvo Island.

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